

### **Where will you place cameras?**

Camera1 – Standard dash cam

Camera2 – dash-mounted facing cabin

Camera3 – roof-mount just behind back seat, facing cabin

Camera4 – roof-mount just behind back seat, facing cargo area/trunk

Camera5 – tripod based, used by test subjects to record camping, loading/unloading, video-logs to research team/manufacturer

Camera6 – outdoor camera of parking area, garage (where applicable)

### **Do you go through the videos for us?**

Yes! You will get the raw footage, all several hundred hours, but our final report will include short 'playlists' of patterns we notice while curating the video. These playlists have been used in the past to make compelling arguments in design/marketing decisions.

### **Can we comment during the test?**

Yes! You will have a project manager assigned to you personally, and may speak to that person as much as you like.

### **Can we talk to the test subjects?**

Rebel researchers will be talking to the test subjects. We find it best to have only three points of contact - the lead researcher, the project manager and the project-lead. And we reserve the project-lead for any issues our test subjects may have during their test (a fender-bender, vandalism, failing equipment, etc.).

### **How does this 'behavioral' study compare to a survey?**

What people say (or remember) is often different than what they do. In long-term behavioral studies, we can identify 'patterns-of-use,' which are invaluable to insight-gathering and improvement. People often don't remember these patterns if asked just a few seconds after performing them, so a survey never gets that information.

### **How do you validate your findings?**

We validate our observational findings through weekly interviews with the participants, part-time testers, and professional product reviewers if needed. If we are below a 95% confidence level on a particular finding, we create tests to validate behaviors until we have that high confidence.

### **Can we see what you see?**

Yes! You'll get updates on the project every 10 days – including rough video playlists if desired. We will reserve the 'official' playlists and the raw video for our final report.

### **How is this better than a focus group?**

Focus groups certainly have their place, and our team has experience leading hundreds of focus groups over the years. However, behavioral studies can leverage technology (cameras, mics, stitching software, etc.) to provide live, real-use data with real customers rather than asking people to imagine a particular situation. Observations of an individual are also immune to the artifacts of “group think” that come out when people share opinions collectively.

### **How do patterns lead to innovation?**

Every innovation in the history of automotive has come from the identification of a behavioral pattern. When people exhibit patterns-of-use, they are showing us, for example, how to make things easier (fewer steps), more convenient (closer), more comfortable (can be either a physical or emotional feeling), safer (physical/emotional), or even proud (variety of feature-sets). We validate these patterns of use by talking to the test subjects and sometimes even showing them film of themselves to help them remember what they were thinking in the moment with that particular vehicle.

### **We want to test a minivan, can you find us a family?**

Of course! We always aim to meet the archetype you’re looking to study. That said, the real insights will likely come from Mom or Dad and the patterns we witness over time – those insights will be the most valuable.

### **I heard Brian speak a while back, can you explain why a lengthy study is so important?**

Human behavior is 90% similar among different subjects. A longitudinal study (one of some length) of a small number of subjects interacting with technology brings the same aggregate results as many shorter studies. But the longer study also includes emotional metrics and great data on the minutia of vehicle ownership. Consider how you were last frustrated with a vehicle, and how that weighed on you over time. That one confusing switch, or that lurch when you try to pass on the highway, a faulty spring, a hard-to-reach glovebox, etc. Noticing this minutia, which sells cars and is paramount to brand loyalty, are the insights we gain from these 8-week studies.

### **How is this better than our multi-million-dollar simulator?**

We’ve worked with automotive simulators and virtual reality in the past. Like surveys and focus groups, they currently have their place and we feel that simulators will be very valuable in the near future. But we aren’t there yet. The data we collect with real customers far outweighs the convenience of a simulator. That said, if we were part of the engineering department at an automotive company, we would build empathy within our teams by using simulators and virtual reality to illustrate real life.

### **Do you use the same test subjects again and again?**

No. We want fresh test subjects for every vehicle; every test.

### **How do I talk my engineers into this?**

We are glad to help, so feel free to give us a call. But in the meantime, just mention that you are going to provide your engineers with the largest dataset-of-use your company has ever seen – that should get them excited!

### **Why 8 weeks?**

Test subjects become more comfortable with the vehicle after 5-6 weeks; worrying less about dings and scrapes while also recognizing their frustrations with a particular vehicle as well as the things they love. Test subjects also become more open with the research team after six weeks, losing some of their inhibitions, making it easier for us to validate their behaviors. We've tried six weeks, but the increased validation of those last two weeks of an eight-week study are gold in terms of insights.

### **How do I talk my boss into this?**

Give them Brian or John's number! Alternatively, we've also had luck sharing with 'bosses' the same promise of great data that gets engineers excited. Bosses particularly like data coupled with solutions, so feel free to mention that when an issue is found in our study – we provide a solution to the issue. This is why we have a mechanical engineer working on our auto program; she will be making sketches of any solutions our design team comes up with for your vehicle.

### **Can we participate in your study?**

As a test subject, probably not – you likely have too many biases as an automotive professional. As a researcher, however, we would love your input during your test. We will be sharing our data with you every 10 days and look forward to your comments.

### **Can we use some of the video for commercials?**

We will all sign NDA's when we begin our engagement. Rebel and our test subjects will agree not to discuss your test, good or bad, with anyone. We ask that you agree not to use video you receive for any commercial purposes outside of research and development. That said, if you strongly feel our videos might be helpful to your marketing efforts, we will gladly put you in touch with the test subjects once the test is complete.

### **How long will the engagement be end-to-end?**

The entire engagement will be complete in 4 months. The month prior to the study, Rebel will buy and prepare the vehicles for collecting and analyzing data. After the two months of data collection, researchers will spend one month analyzing the data and developing carefully-curated deliverables, including design solutions, for your team to review.

### **Will other auto manufacturers know we are participating in this study?**

No. While we are happy to test any vehicle for any client, we will not reveal the identity of any of our clients or the vehicles that we tested for them.

### **Can we test concept vehicles?**

If your vehicle is street legal and insurable, we can test it!

### **How will you ensure test subjects drive the vehicle as much as you anticipate and use it for a variety of activities?**

Incentives! Every test subject will get a national park sticker, overnight vouchers for roadtrips, take-out food budgets, and baseball/amusement park tickets, to name but a few of the incentives we will be offering.

### **Will being on camera affect how participants behave in their vehicle?**

In our experience people quickly settle into their natural habits during extended observational studies (and an 8-week study helps!). Also, the in-vehicle cameras will turn on automatically when they sense motion so the participants won't be reminded of them by turning them on and off.

### **Why is client privacy and confidentiality so important?**

Our research will be identifying potential issues and design flaws, which we understand is sensitive information you don't want out in the public. Furthermore, we want to give you the flexibility to test a competitor's vehicle without it being known to anyone but your key stakeholders.

### **How will you prevent participants from sharing info about the study on social media?**

Participants will sign NDAs that outline clearly what they may and may not share.

### **In what format will the audio and video files that you deliver to us be?**

Audio and video will be .mp4, unless you request otherwise. You will have access to the full set of raw and curated data after we have summarized the findings.

### **How will you present design issues that you uncover?**

We will help you move forward to solve any issues by presenting novel design solutions with mechanical sketches by our on-staff designers. We'll leave the CAD to your engineers but will get you started with world-class design.

### **Will the study focus on the infotainment system?**

This study is aimed at the entire vehicle experience, and will therefore not place particular emphasis on the infotainment system. That said, our cameras will capture video of infotainment system interactions and the driver/passenger's gestures. Notable infotainment issues will be resolved in 1-2 wireframes per issue. If you'd like Rebel to redesign your UI, this is something we have been doing for 10+ years and we'd be delighted to help; but that would be a separate engagement.

***Have another question? Give us a call at 415.937.1242 or email  
auto@rebelconsultants.com***